

Title (en)
POWER REGULATING UNIT AND TRANSPORT REFRIGERATION DEVICE USING THE POWER REGULATING UNIT

Title (de)
LEISTUNGSREGELEINHEIT UND TRANSPORTKÜHLVORRICHTUNG UNTER VERWENDUNG DER LEISTUNGSREGELEINHEIT

Title (fr)
UNITÉ DE RÉGULATION DE PUISSANCE ET DISPOSITIF DE RÉFRIGÉRATION DE TRANSPORT UTILISANT L'UNITÉ DE RÉGULATION DE PUISSANCE

Publication
EP 3945666 A1 20220202 (EN)

Application
EP 20214271 A 20201215

Priority
CN 202010760327 A 20200731

Abstract (en)
The present disclosure relates to a power regulating unit (10; 20) and a transport refrigeration device (200) using the same, and belongs to the technical field of power supplies. The power regulating unit (10; 20) of the present disclosure comprises: a rectifier module (110) configured to perform a rectification operation on an AC input (91) to obtain a first DC signal; a controller (130) configured to control the rectification operation of the rectifier module (110) based on corresponding parameter information (92) for reflecting fluctuations of the AC input to prevent the first DC signal obtained from being affected by the fluctuations; a first output port (142) configured to output the first DC signal; a first DC-DC conversion module (150) configured to convert the first DC signal into a second DC signal (151); and a second output port (152) configured to output the second DC signal. The power regulating unit (10; 20) of the present disclosure can provide multi-mode DC outputs and the DC outputs are stable.

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CPC (source: CN EP US)
F25D 11/003 (2013.01 - US); **H02J 7/06** (2013.01 - US); **H02M 1/0022** (2021.05 - EP); **H02M 1/007** (2021.05 - EP); **H02M 1/008** (2021.05 - EP); **H02M 1/12** (2013.01 - EP); **H02M 3/00** (2013.01 - CN); **H02M 3/01** (2021.05 - EP); **H02M 7/04** (2013.01 - CN); **H02M 7/12** (2013.01 - CN); **H02M 7/1557** (2013.01 - US); **H02M 7/217** (2013.01 - EP US); **H02M 7/219** (2013.01 - EP); **H02J 7/0068** (2013.01 - EP); **H02J 2207/20** (2020.01 - EP US)

Citation (search report)
• [Y] EP 2766983 A1 20140820 - THERMO KING CORP [US]
• [Y] WO 2011026047 A1 20110303 - GREEN PLUG [US], et al
• [A] US 2017117731 A1 20170427 - SHIMADA TAKAE [JP], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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EP 3945666 A1 20220202; CN 114070101 A 20220218; US 11955902 B2 20240409; US 2022038023 A1 20220203

DOCDB simple family (application)
EP 20214271 A 20201215; CN 202010760327 A 20200731; US 202017132899 A 20201223